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Selecting a Farm



THIS BULLETIN is designed to aid the prospective buyer or renter in the choice of a farm. It is written for those who already have had some experience in farming, rather than for the uninitiated, and is intended primarily to afford suggestions to the farmer whose training has been rather limited, or to the more experienced man who contemplates moving to an unfamiliar locality or changing to an unfamiliar type of farming. It is assumed that no one wholly without experience in farming would be so rash as to choose a farm on the strength of knowledge gleaned merely from a bulletin on the subject.

Office of the Secretary
Contribution from the Office of Farm Management
H. C. TAYLOR, Chief
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SELECTING A FARM.

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THE WISE SELECTION OF A FARM is vital to the success and satisfaction of farm life. Choosing a farm often means choosing a place in which to live and work for a lifetime. It is important, of course, to decide wisely in buying for investment, but in making a selection for a home it is of double importance that one consider the various features that may have a decisive bearing on the farm business or that may affect the home life. It is the purpose of this bulletin to bring some of these points to the reader's attention so that he may be in a position to view the matter on all sides, and weigh the advantages and disadvantages before buying or renting a particular farm.

It has been said that we are creatures of environment. If this is true of any class of people it is true of farmers. The farm boy travels in his father's footsteps, all too often without attempting to gain a broader vision through acquaintance with conditions other than those that have shaped his father's life. The conservatism of the farmer is primarily based on the fact that generally he is a student of none but local conditions. When a person has been trained in only one kind of farming he is very apt to look at another kind of farm business with prejudice. The dairyman can see only dairying. He wants cows

everywhere. He thinks in terms of cows, acres of silage corn, and tons of hay. A fruit farmer can see nothing but fruit, and habitually thinks in terms of the fruit business.

It happens that many farmers, especially the younger men, in moving from one region to another, make serious errors in their selections of farms, not that their judgment is naturally poor, but mainly because they know only one set of conditions and are not able to measure accurately all the new factors that must be taken into account in choosing their new location. It is here that the science of farm management is helpful, in that from the farm-management viewpoint the farm is put on a business basis, so that all the influences which may have a bearing on the profitableness of this business are considered.

In doing this, however, the home side of the question must always be kept in mind. The farm home and the farm business are inseparable. A desirable farm, from a business standpoint, is nevertheless undesirable if it has no social or community advantages. On the other hand, desirable living conditions are of little or no advantage unless supplemented by a successful farm business.

A farm may have fine buildings, good water supply, splendid roads, and other assets of this nature, yet if the soil is rocky, shallow, or naturally infertile, so that its productive possibilities are distinctly limited, there will be no adequate income wherewith to enjoy the other advantages. Moreover, these physical limitations are enduring, while the needed improvements, such as buildings and roads, can be added as means are provided.

It is fully realized that many persons select certain regions or certain farms largely for personal reasons. In such instances the personal factor outweighs all others, and the question of the desirability of the farm from a business standpoint is comparatively of less importance.

It is obvious that few farms possess all of the desirable features and that it is often sound business to invest in a farm or in land even though it has certain undesirable features. Naturally, the particular circumstances and the purposes for which the individual desires a farm will always be taken into consideration in making a selection.

TRAINING AND EXPERIENCE.

It is assumed at the outset that the prospective farm buyer or renter has sufficient training and experience along agricultural lines to justify him in making the venture. Successful farming is not easy. It requires large experience in doing the various kinds of farm work and the ability to show others how to do this work. It also

requires training in business management, and knowledge of the principles of plant growth, the feeding and care of animals, and the maintenance of soil fertility. Few industries require such a wide range of training and experience. Farming is not simply growing a particular crop or feeding a certain kind of live stock, but is an all-the-year-round business, involving the production of various plants and animals and the successful organization of the varying farm enterprises into a smoothly working unit.

To obtain the needed training and experience on one's own farm is usually expensive. It is much cheaper for the beginner to get the preliminary training by working for another farmer.

The writer's father, in speaking of his farming experience, said: "If anyone could have told me at the outset the things I have had to learn through 50 years of management of this farm, years of experiment would have been saved and success made very much easier."

Although the suggestions outlined in this bulletin are primarily for the beginner and less-experienced person, nevertheless it is assumed that no one entirely unfamiliar with agriculture would presume to buy a farm after merely reading a book or bulletin on the subject.

In buying a farm, a city man should bear in mind that he is in much the same position in choosing a home and business in the country as the farmer would be if he went to a city to purchase a home and place of business. Lack of experience and information in either case is usually expensive.

Many of the finer points that an experienced farmer would note in inspecting a farm can not be discussed here. The experienced farmer, when choosing a farm of a familiar type, does not need a score card in making his selection.

TO BUY OR TO RENT?

In choosing a farm one has the following options: (1) Buying a farm with the intention of operating it as his entire business; (2) buying a small farm and renting enough additional land to meet his needs; (3) renting a farm either on a share or cash basis.

The question of whether to buy or rent can not definitely be answered here, but the suggestions as to the benefits derived from the use of capital and size of the farm business apply in either case. One's choice in this matter is usually determined by the funds available.

If one has only a small amount of capital and wishes to undertake farming as a business from which to derive his entire income, he should, in nearly all cases, begin as a renter. However, if he wishes to buy a farm on which to live, deriving a part of his income

from other sources, then possibly purchasing is desirable, even though capital is limited.

Again, in many cases if one is able to purchase a small farm it is possible to develop this as a basis of operations and rent additional land in the neighborhood. This is not an altogether desirable method of operation, as one can never be sure of suitable lands being available. It is an expedient, however, that enables one to operate a much larger business than he could otherwise with the amount of capital he has, and at the same time have a home which he can call his own.

Whatever course is followed, it is highly desirable that one thoroughly understand the basic business principles governing the farm business before attempting to decide some of the finer points. A disregard of these basic principles is responsible for a large percentage of farm failures. A man may unconsciously work all his life against some unsuspected economic barrier, when success would have been comparatively easy had he selected a farm where the economic principle would aid him instead of working against him.

THREE VITALLY IMPORTANT FACTORS.

To achieve success in an ordinary farming venture it is almost essential to have these advantages:

1. Opportunity for a paying size or volume of business.
2. A type of soil or kind of live stock that will yield returns that more than cover the cost of production.
3. Suitable conditions, both as to natural resources and environment and as to markets, to permit the development of a dependable organization of diversified activities.

ADEQUATE SIZE OF BUSINESS.

Other things being the same, the net income from a farm is directly affected by the size of the business. If the gross income is small the net income must necessarily be relatively small, no matter how economical the management. In earlier years the amount of hand labor available largely controlled the size of the farm business, but under present conditions the determining factor is not what a man actually may accomplish with his own hands, but what he can accomplish with the aid of teams, machinery, and other agencies.

Land, buildings, and equipment are economically valuable only in so far as they can be used for productive purposes. The real income from a farm is derived from three sources, namely, returns for the use of land, returns from working capital, and returns for labor expended. If both capital investment and labor expended are small,

the income must necessarily be proportional. Capital working alone in the farm business will not yield an income; a man may have plenty of land to work, but if he does not work it he gets nothing. Then again, if he has but a small acreage, or an acreage that gives but limited opportunity for profitable work, he necessarily is limited in income from his labor. It is possible, of course, to conduct a large business on a small acreage, but intensive farming, such as market gardening, can be carried on only with a great expenditure of man labor. The man who chooses to farm an acreage too small to permit the free use of labor-saving implements should understand that a



FIG 1.—This kind of farming necessitates a great expenditure of hand labor.

convenient market for his products and a relatively large application of manual labor per acre are essential to even a moderate success. (See fig. 1.)

It should be borne in mind that it requires a farm business of considerable size to provide an income that will merely cover maintenance charges, and that these charges are relatively larger for small farms than for large farms. A farm may be of such a size as to furnish most of the supplies needed in the farmer's living, such as garden, fruit, etc., and enough income to pay the taxes and running expenses, but unless there is a margin above this annual maintenance charge no progress can be made toward accumulating a surplus.

This point is often overlooked, and thousands of men fail to understand why they do not get ahead faster, when, as a matter of fact, the size of their business is such that there is only a remote possibility

of any margin being left after obtaining a bare living and paying absolutely necessary running expenses. Often the income is insufficient even to do this, and the farmer and his family have to go without some of the comforts of life.

Thus it is that the size of the farm business is one of the most important if not the most important factor to be considered in selection. In evaluating a farm in this regard it is essential to make sure of three things:

1. That you have an opportunity. That is, make sure that the desired volume of business is at least potentially there, as evidenced by tillable land or by markets for intensive crops on small areas.

2. That the volume of business can be achieved by economical methods.

3. That the volume of business that can be conducted on the farm is such that it will yield an income large enough to provide a comfortable margin, after paying the absolutely necessary expenses of operation and providing an adequate living for the farmer and his family, for saving or future demands.

The watchword should be "opportunity," and opportunity hangs upon two factors, either of which is of no avail without the other: First, room to use capital and labor economically, and second, a place to market the harvest.

Only recently an object lesson in this regard came to our notice. A young man, born and brought up on a farm, who had financial backing from a well-to-do farmer, selected a farm in the neighborhood for his permanent home. The farm he bought was such as profitably to use the labor of but one man for only a part of the year. It was 160 acres in area, but rugged, rocky, and incapable of development for any type of farming that could be profitably carried on in that region. No amount of planning could make that farm produce more than a meager income. It had markets, good neighborhood and other desirable features, but offered no opportunity to work and develop a business to advantage. Of course, such a farm could provide work for several men digging rocks, or laying tile drains in soils too shallow to be worth draining, or putting up buildings which would never be filled with crops, but none of this work would be worth while, even though it might utilize the time of several laborers and keep the owner himself busy, since it could not be done at a profit. As long as he stays on that farm the young man can never hope to make more than a meager living, for the basis of an adequate income is not there.

Take another case, of a different nature, but illustrating the same point. A young man selected a farm of excellent soil, with favorable climate, good buildings, good roads, and desirable social conditions,

and undertook to conduct a business along intensive lines with the intention of having as much of a business on 20 acres as there would be on a 120-acre general farm. His failure came when he found, after the season's crops were grown, that he did not have markets for the products derived from that type of farming. This young man did not have capital to buy a larger area, so he planned to put a large business on a small area. This would have been all right if he had had available markets for his products. If he had selected such a farm near a large city or other suitable market he might have succeeded, though in that case the price of land would probably have been prohibitive.

HIGH QUALITY OF BUSINESS.

It is obviously essential to the success of any farm to grow crops and to keep live stock that return enough to pay more than the cost of production. On a certain farm it took 32 bushels of corn to cover the bare cost of growing the crop. When the farmer harvested 33 bushels he had a margin of but 1 bushel over and above the cost. On a farm across the road it took 34 bushels to pay the cost of growing the corn, but the farmer harvested 50 bushels—a margin of profit 16 times greater than that of his neighbor. Such margins represent the difference between success and failure.

In choosing a farm be sure to see that the prospects are for crop yields more than sufficient to balance the cost of their production. It is plain common sense that good crops are better than poor crops, and that good cattle are better than poor cattle. Soils of low fertility are a handicap; indeed, some soils are a positive liability if one has to farm them. It is well to inquire thoroughly into yields, not only those that have been obtained on the farm itself for a series of years, but those realized on adjacent farms. Learn whether poor crops are due to poor soil or to bad management. If yields are very high, inquire carefully as to how they are obtained, and judge for yourself as to the economy of the methods used. If the yields have been very low, it may be that the better management or improved methods which may be put into effect will make possible the production of profitable crops; but before buying in such a case, make doubly sure that the land is capable of improvement.

Equally essential to the success of the farm business is high quality of the live-stock enterprise; that is, handling live stock so that they will pay for feed, care, and labor. This is more than a matter of management, for it is dependent on cheap roughage, pasturage, market, and getting labor at reasonable rates.

We must not confuse the quality of the business with the question of prices for which the products are sold. A man may be growing

excellent crops or have very fine live stock, but the prices he receives may be so low as to make even high yields and good live stock unprofitable. More often, however, failure in the farm business is occasioned by low yields and poor live stock when the products are marketed at prevailing prices. The chances of success are with the man who grows a good crop and keeps at least a fair quality of live stock.

ADEQUATE DIVERSIFICATION OF FARM BUSINESS.

Diversification of the farm business, as represented by the production of several salable products, lessens the risk of loss from crop failure and low prices, promotes better utilization of teams and machinery, permits rotation of crops, and on the whole is conducive to the safety and stability of the farm business.

If the farm selected is so situated that it is desirable to grow only one product, one should be very certain as to the reliability of that product, both as to production and as to sale. If the climate is such that only a limited class of crops will thrive or mature, the growing season may be so short that certain crops essential to a good rotation can not be grown. Make doubly sure that climatic conditions, such as rainfall, period of drought, late spring or early fall frosts, hailstorms, strong winds, hot winds, fogs, and humidity do not seriously limit the development of a diversified farm business. It is generally possible to grow some crops, but can all those needed be grown so successfully as to insure a well-balanced farm organization? Many farmers have failed through failure to give proper attention to this question.

Equally important in this regard with market and climatic limitations are soil and topography. A soil may grow beans, corn, oats, and timothy, but not clover, an essential crop for many rotations. The soil may be too sandy for some crops. It may blow badly or wash when intertilled crops are used in the rotation. It may be too poor, or subject to leaching, or alkali, or drought. These conditions may not necessarily limit all the crops, yet be so unfavorable as to limit certain crops on which proper diversification of the business must be built.

AMOUNT OF CAPITAL.

The outlay of capital in the farm business is generally a question not of how much to invest in the business but of how much of a farm business can be undertaken with the funds and credit available. In the case of those having plenty of capital, the amount needed to finance the business is governed by the size of the farm they may choose to operate.

It is important to bear in mind the necessity of a proper distribution of one's capital among the items of land, equipment, live stock, supplies, and cash for operating expenses. A poorly balanced equipment, either in point of live stock, machinery, or other features, may seriously limit the farm income. Lack of enough horses to do the work, or of the necessary live stock to consume the hay or roughage is a serious handicap, particularly for the beginner. On the other hand, investment in expensive items of machinery or improvements may well be postponed for a few years, the primary object at the beginning being to equip the farm with those things which will count from the outset toward the making of an adequate net income. Later, as profits are realized, other improve-

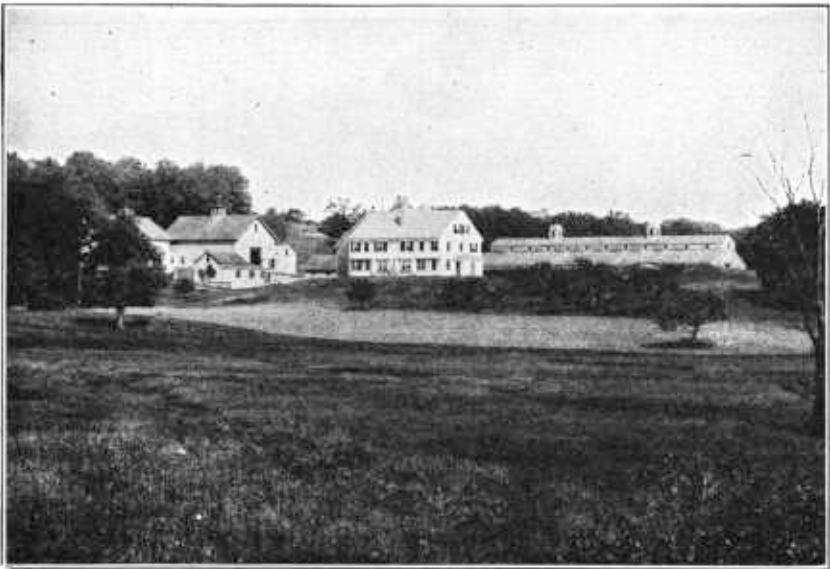


FIG. 2.—A "show farm" on which overhead expenses were so great that the business lost money.

ments can be added. Over-investment in buildings is a common fault of beginners and not uncommon among farmers in general. Expensive buildings entail a heavy annual charge against the business. (See figs. 2. and 3.)

The proportion of the total investment in land and in the various items of equipment should vary according to the price of the land and the kind of farming followed. In a general or diversified farming business, that is, growing staple crops, with dairy cows, hogs, or other cattle, from 70 to 80 per cent of the total farm investment will be required by the land and buildings. On truck, fruit, grain, cotton farms, possibly 90 per cent may be represented by real

estate. The amount of cash necessary for running expenses will vary from 1 to 3 per cent of the total investment. This will depend largely on the way the annual income from the farm is received. On dairy farms the checks for milk or cream are received every month. These furnish funds for running expenses and a smaller amount of cash is needed for operating expenses.

The successful farmer, however, usually keeps funds at hand to use for bargains should occasion arise. Cattle may be going at a low price at a neighborhood auction or the farmer may have opportunity to buy second-hand machinery to replace that worn out. Many farmers buy much of their equipment in this way. The amount invested in machinery, tools, etc., will usually range from 2 to 5 per cent of the total farm investment. The remainder of the funds will



FIG. 3.—Farmstead of a successful Corn Belt farm. Buildings ample for the large business, but not expensive.

be represented by live stock, feed, and supplies, the amount of the latter depending largely upon the season of the year and the number and kind of live stock kept.

With limited capital it is a common practice to buy as large a farm as possible with the amount available to cover the cash payment required at the time of purchase and still have enough funds to equip and operate the farm selected. Thus, if the buyer had \$5,000 in cash he might invest his funds somewhat as follows: He selects a farm costing \$8,500, of which \$6,000 could remain as a first mortgage. Thus he places \$2,500 in land as a cash payment at time of purchase, giving a mortgage for \$6,000. This leaves \$2,500 for equipment and

operating expenses. He might put \$600 in machinery and tools, \$1,200 in work stock and other live stock, \$300 in feed and supplies, and \$400 in cash to carry on the business. These are only approximate figures and will vary considerably according to the farm selected.

Usually for a beginner in the farm business the amount in cash should exceed that ordinarily used by a farmer in a well-established business, as more funds are needed in getting started than later when the business is well established.

Only a rough approximation can be given of the number of work stock necessary. On general farms having more than 100 acres in crops there should be one work horse for every 20 to 25 acres of crops; on Eastern farms having 50 acres or under in crops one horse to every 12 to 15 acres of crops, and on cotton farms one mule to every 12 to 16 acres of cotton plus 8 to 10 acres of corn and other crops. As the size of the farm increases up to a certain point greater efficiency of work stock and machinery is obtained and each work horse or machine works a larger area. Observation as to the number of horses needed on neighboring farms of the same size is an excellent guide in this matter.

Farm management investigations have shown conclusively that there is a very marked increase in efficiency in the use of men, horses, and machines on medium-sized farms over small farms. Why this is true is obvious when we stop to analyze the problem. If your horses work only 15 acres of crops each and the horses of your neighbor across the road work 20 each, and you both sell your products to the same market, you necessarily have to bear a higher expense for horse labor. If your mowing machine cuts 25 acres a year and stands in the shed 360 days out of the year, and your neighbor's machine cuts 75 acres, your machinery charge per acre of hay cut must necessarily be higher than his.

Even on small farms occasions are constantly arising when at least two men are needed. One may be required to keep the team busy while the other goes to town for supplies, or does the chores, etc. Many operations require two men to perform them to advantage. One man in a general farm business, without help, can hardly work sufficient land fully to utilize his teams and machinery to the best advantage.

So far as investigations on this subject have progressed, no marked increase in efficiency of men, horses, and machines is obtained on very large farms over medium-sized farms. Stated differently, there is a pronounced increase in efficiency on a medium-sized farm over a small farm, but beyond a two-man farm, or one

on which from 20 to 25 acres of crops is covered per horse, there is no substantial gain in efficiency of men or teams by reason of larger acreage.

The typical American farm, generally speaking, provides work for the farmer and one additional worker. In many cases the additional help is the farmer's son or some other member of his family.

ADAPTABILITY TO CHANGING ECONOMIC CONDITIONS.

In choosing a farm, it is well to bear in mind the probable effect of changing economic conditions. Certain crops may cease to be profitable, owing to the development of other regions more favorably situated for their production and marketing. Some crops may have to be abandoned because of disease, insect pests, etc. The question should be asked: Is the farm selected adapted to such possible changes?

For instance, suppose the farm selected is now growing beans, potatoes, corn, oats, clover, and hay, with the prospect that beans and potatoes will soon cease to be profitable. Can some other crop or crops be found to replace them? Very few regions have a wide range of crops, especially in general farming, and adaptability to new crops is a very important consideration.

Can the beef-cattle farm be made over into a dairy farm? Can the dairy farm be made into a sheep farm? Can the fruit farm be made into a hay, grain, or live-stock farm? In many instances it will be found that the farm in question demands an inflexible type of farming that can not be changed to meet the exigencies of changing conditions.

The history of American agriculture is filled with thousands of illustrations of agricultural evolution brought about by the great development of agriculture in the movement of settlement from East to West. Many of the greatest mistakes of the present generation have been made in this particular. Men have selected farms which were all right at the time, but in a few years, with changed market conditions, their whole business has been ruined, leaving them with farms on their hands which did not admit of reorganization or readjustment. Such failure may result from having too small an area for general farming, or from having soil not adapted to the production of staple crops. The Eastern States are strewn with run-down farms that were profitable under the conditions of a generation ago, but which can not be adapted to present-day conditions with respect to labor, use of machinery, transportation, etc. This is one of the important factors responsible for the low price of land in some of our Eastern States.

The West also has made many serious mistakes in the same way, even within the last few decades. (See fig. 4.) Many farms, selected with a view to some special type of farming, are found to be altogether too small to be efficient or profitable when a more stable or diversified business becomes necessary.

This mistake is made both by experienced and by inexperienced farmers. Experienced farmers make the error when the change is to a new type of farming, such as a grain farmer going into fruit growing or a small back-yard poultry grower going into a large poultry business.

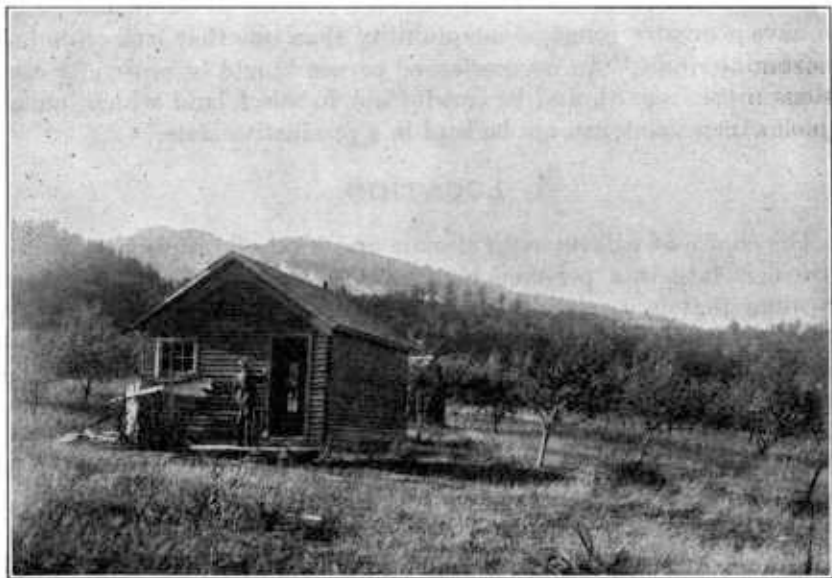


FIG. 4.—A deserted orchard farm in the Northwest. The owner of this place failed because of poor soil and lack of irrigation.

When making a selection, look back and follow the local economic changes that have occurred in the last 30 years, and then judge for yourself whether the farm you have under consideration has the adaptability necessary for meeting the changes that are bound to come in the future.

CAN A HIGH QUALITY OF FARM BUSINESS BE MAINTAINED?

A point that needs special emphasis in this connection is the capacity of the farm for the maintenance of a high quality of business, as evidenced by good crop yields, good pastures, and feed for live stock.

The yields may be satisfactory at the outset, but, as the soil is broken and cultivated, are conditions such that these yields can be maintained? Often the soil is soon exhausted by reason of the fact that most of the humus is on the surface. Again, the land may soon become sour or alkali from poor drainage. Many soils when cleared of timber and broken up deteriorate rapidly, even under good management. Their fertility is only on the surface and they are easily and quickly impoverished.

In live-stock farming an important factor is plenty of cheap roughage. A farm that permits of the production of such feeds, for instance, a place with good pastures, is more desirable and likely to have a greater range of adaptability than one that lacks this important attribute. An inexperienced person should be especially cautious in this regard, and be careful not to select land which, under good management, can not be kept in a productive state.

LOCATION.

The choice of a farm as to climate and kind of farming to be followed, is largely a personal matter. One may prefer the kind of farming that is carried on in a Northern State, another may like the climate of a Southern State. Again, a man may have personal reasons for taking up dairy farming, or fruit farming, or some other type. It is not possible to outline here the advantages and disadvantages or points to look out for in each type of farming which may be found in different parts of the country. If one has a preference for a particular type of farming, as a general proposition he should go where that type is well developed, which fact is an indication that conditions are favorable for it. Embarking on an entirely new type of farming in a region where it has not been heretofore followed is an exceedingly hazardous undertaking. Sometimes it is successful, but the chances are that there are some very good reasons why such a type of farming is not found in that region. However, a man who is intensely interested in a special type of farming might make a success of it in a comparatively unfavorable region by reason of great care and skilled management, whereas others, who were not so experienced in this kind of an undertaking, would fail.

A very common mistake of city persons who take up farming for the first time is that they almost invariably wish to introduce certain novel crops or kinds of live stock which generally can be more profitably produced in other districts. A certain degree of success may be attained by following a new type, but usually the greater success is scored by sticking to the enterprises which experience has shown can be carried on profitably in the area in question.

TOPOGRAPHY AND SOIL.

Often too little attention is given to the condition of the soil and the lay of the fields with reference to ease of cultivation. Crop land in itself is of little value unless it is so situated that it can be made to yield profitable returns through the use of labor and machinery. A farm of 160 acres, valued at \$100 per acre, may be a much better bargain if practically all of the land can be put to some profitable use than another farm of 160 acres purchasable at \$50 per acre, of which large areas are practically without utility owing to streams, swamps which can not be drained, or rough stony areas not suitable even for pasture.

In selecting a farm, therefore, it is essential that not the total area as conveyed by the deed or contract be considered, but the area available for profitable use. Any additional land may be really a liability instead of an asset, since very often the returns are not even sufficient to pay the taxes. A great many mistakes are made on this point alone, the buyer frequently thinking that he can crop the land in one way or another but later finding that conditions are such that it is more profitable to permit it to grow up to brush or woods than to attempt to cultivate it.

Another factor is ease of cultivation. If the land is very steep or broken it is not practicable to use improved machinery and it is even difficult to harvest the crops and remove them from the land by older methods. This is particularly true in loading hay and grain on steep hills. Smaller loads have to be drawn than on level land, and much time is wasted in loading. Such fields, of course, can be worked, but it must be remembered that the cost of producing crops on such land is necessarily higher than the cost of producing them on fields which permit of a more efficient use of labor and machinery. This difference in cost must be reflected in lower valuation, and hence in lower taxes and interest or rental charges; otherwise the farmer must pay these increased costs out of the returns from his own labor.

The physical condition of the soil is an important matter and one which should receive first attention, particularly from the beginner with small capital. Frequently, even on high-grade farms, soils get into very poor condition through a few years of mismanagement. It is a very easy matter to cause untold damage to good land through improper tillage or careless handling of the soil. To correct such damage usually takes several years. One should distinguish between those soils which are of a poor physical condition naturally and which can not easily be corrected by the use of manures and better methods of cultivation, and those which are in poor physical condition through improper management and which can be restored by good manage-

ment. Putting a soil in prime condition for planting is a fine art, that can be fully learned only through long experience in handling the particular type of land involved.

The depth of the soil is of great importance and is a matter to which attention should be given when the land is first examined. Shallow soil is often a liability and its utility is sharply limited for practically all farming purposes. It is cold and wet in the spring, the water table being kept close to the surface. Later it dries out rapidly and becomes baked and hard. Such soil is quickly affected by drought. Shallowness is a common defect in a great many areas. Some fields may have a soil much more shallow than that in others. This shallowness may not necessarily be due to the hard rock being close to the top but to "hardpan," an impervious layer of clay, which is just as harmful as rock in shutting off drainage and preventing the plant roots from extending to their proper depth. This shallowness is a characteristic which is not easily distinguished. It can best be detected by the use of a soil auger. If shallowness of soil is general or characteristic of the region, it may be detected to a certain extent by the tree growth, certain kinds of trees being found on thin soils. An experienced farmer can usually detect it by the general type of plant growth, but an inexperienced person, particularly in a new region, may be badly mistaken on this point. It is one of importance and should be considered carefully.

Connected closely with thin soils is the subject of drainage. On this point a person selecting a farm should make assurance doubly sure, first, as to the natural drainage of the fields, and, second, as to the possibility of draining them if the land needs artificial drainage. There are few good soils that do not need artificial drainage in many places. The gains from ease in working the land, earlier drying out in the spring, and consequent lengthening of the time available for preparation for crops, the insurance of deep rooting of the plants and consequent protection from injury by drought, to say nothing of the gain through avoiding crop failures due to water standing on the land and slowness in drying, which often rots the seed or retards growth, are very important factors bearing on successful crop production. Thin soils and, in general, those which need drainage the most are usually difficult to drain, chiefly because they are not deep enough to allow the tile to be put far enough below the surface. The topography of many farms is also such that good drainage is impossible, because it is impossible to get a suitable outlet without going to a great deal of expense. Ease in digging ditches should also be considered wherever drainage is needed.

Again, many fields are wet during certain seasons of the year owing to what is known as "seepage"; that is, water being brought to the

top by rock outcroppings or by strata of clay coming near the surface. Where this occurs on hillsides, or on generally rolling land, it is frequently very difficult to correct by drainage, as the rock or clay layers which bring the water to the surface run across the slope of the hill, and ditches to catch the water successfully would have to run along the side of the hill, those going up and down not catching the water unless they were placed very close together. This is a point which should be carefully watched for on many eastern farms, particularly in those regions where the soils are of glacial origin.

It is often difficult to determine merely by looking at the crop growing on it at certain seasons whether a field needs drainage. Frequently the best-appearing fields, even with considerable slope to them and seemingly well drained, as a matter of fact are very poorly drained in many ways. Ridges or level areas on the tops of hills or in rolling districts are often poorly drained, largely because of the thinness of the soil.

All of these factors, such as the amount of usable land, ease of cultivation, depth of drainage, condition of soil, freedom from danger of erosion, blowing, flooding, etc., should receive the closest attention, for they directly affect the productivity of the land and the returns which may be derived from it.

ARRANGEMENT OF FARM.

In choosing a farm one can seldom find the ideal arrangement of buildings and fields, and a farm which may be very desirable in many other particulars may be undesirable in this respect. In the Eastern States the buildings and fields were laid out and arranged in the days when labor was comparatively cheap and there was little thought of saving it. At present the saving of labor is a most important factor, and the arrangement of a farm may be such that much time is lost because of irregularity in the shape of fields, or because important fields are far from the buildings. The latter fault sometimes can not be remedied. In the Eastern States three factors have determined, more or less, the location of the buildings: (1) The water supply, (2) the roads, and (3) the area of good arable land nearby. In regions where spring water is generally used the buildings were invariably placed so that the water could be piped or carried to them. Thus water supply had a greater weight in determining the location of the buildings than ease of reaching the fields or the highway. It is not uncommon to find the best fields distant from the farm buildings, or to find the buildings far removed from the highway, which depreciates very materially the value of the farm.

Again, the arrangement of the buildings themselves, as regards ease in doing chores or other work about them, is important. Often

the buildings were planned for one type of farming, and that having been discontinued and another taken up, they are not suited to the particular kind of farming now practiced. Frequently, however, alterations can be made which will improve the arrangement in many respects, but then, again, conditions may be such that this can not be done.

WATER SUPPLY.

The experienced farmer in selecting a farm will generally look first at the source and dependability of the water supply, because he knows that a farm without an adequate supply of water is most undesirable. Attention should be directed to the quality of the water, to the question of whether the supply is dependable at all seasons of the year, and to the cost of obtaining it.

The cost of upkeep and supply of water on a farm is often a big item. Except in regions where there is an abundant supply of spring water it usually costs more on a farm than in a city. If live-stock farming is carried on, special attention should be given to the dependability of the water during hot, dry months, and also during the winter months. It is difficult to obtain water from streams or to drive cattle long distances during severely cold weather. Water in the various pastures sufficient for the live stock is a valuable asset on any farm.

SOCIAL CONDITIONS.

The question of good schools is obviously important. Attention should be given not only to the accessibility of elementary schools and high schools, but also to the taxes required to keep up these schools. In the same way, churches and other institutions have an important bearing upon the desirability of the farm. The character of the people in the neighborhood, their interests and ideals are also important.

Very often an excellent farm is sold cheap because the owner does not care to live in a certain neighborhood. Disagreeable social features are not always apparent to the purchaser until some time after locating. Such conditions may not affect the productive possibilities of the farm, but do materially affect the home life and comfort of the farmer and his family, and in that way make the farm undesirable.

PROSPECTIVE RISE IN VALUE.

A very large number of farms are bought solely because the buyers believe that the land will rise in value and that they will be able to dispose of their holdings later at a substantial increase. In

fact, many thousands of American farmers have made more substantial profits in this way than they have in farming. This practice is to be vigorously condemned in all cases where the buyer merely holds the land for speculative purposes. However, where farms are purchased with a view to developing and putting them in shape and then placing them on the market again, no valid objection can be raised.

An enormous rise in capital value of farm lands has taken place in this country during the last 20 years, and no one can predict with certainty the probable course of values in the future. The buyer of a farm, however, should carefully look into the development of the region in the past with a view to determining whether present values have been brought about by speculation in lands or whether they are attributable to the inherent good qualities of the land and the proximity to markets. He should also note those features which might affect its value in the future, such as the possibility of new railroads, of improvement of existing highways, of the development of near-by markets, of increase or decrease in demand for the particular products produced in that region, etc.

In considering the price of the particular farm selected, it is suggested that the prospective buyer make out a statement of the income as derived from the farm during the previous year. This financial statement of the farm under its present system of management is an excellent guide whereby to judge of its real worth and to indicate its possibilities for development. The blanks presented in *Farmers' Bulletin 661*, "A method of analyzing the farm business," are suitable to be followed.

Very often the occupant of a farm will not have a statement of the exact receipts and expenditures from the various crops and live stock, but this should not deter one from attempting to make out a financial statement of the farm business. The seller or agent, if he is in earnest about disposing of the property, should be willing to give or obtain a substantially correct statement of the business conducted.

Examine this statement as to the total receipts, especially the sources, the stability of each, and the possibilities of increase. Note whether the receipts are due to good crop yields or to exceptionally high prices for that particular year. Note especially the income from the live stock, as to whether the profit came from good gains, the production of milk, or from high prices received. See whether any by-products have been unused, or whether especial attention has been given to their sale or use.

Note the cost of labor, how many men it took to operate the farm, and at what period of the year. Note the amount of feed, such as hay or grain, that may have been purchased to carry the live

stock; the expenditures for fertilizers; thrashing bill; and ginning or hay-baling expense. Note also the costs of repairs and upkeep; if these two items are unusually low, find out whether the owner has deferred necessary repairs in the expectation of disposing of his property. Note particularly the taxes and what they were for, whether for State, county, or local schools, and consider the possibility of increase or decrease in these taxes.

After examining this statement go over the farm with the idea of determining whether the income from any particular crop can be materially increased or whether new crops or better arrangement can be substituted, so as to bring about an increased revenue. Note any features which will make for a lessening of expenses, such as operating the farm with a smaller number of work stock, fewer workers, etc. Note particularly the improvements that must be made in the near future, such as new roof, flooring, sills, or framework construction for the barn; fencing, laying tile, etc.

BUYING EQUIPMENT, LIVE STOCK, ETC., WITH A FARM.

Often it is a distinct advantage when purchasing a farm to buy the equipment, live stock and materials already on the place. In this way an income is yielded almost from the outset, which usually makes possible the operation of the farm without a loss, and thus gives the new comer a chance to work out changes and plans and at the same time have a self-sustaining farm business.

If only the bare farm is purchased it usually takes some time to supply all the equipment and live stock and put the place on a paying basis. In the meantime overhead costs and other expenses amount to a considerable item. There is a distinct advantage in buying a farm that is a going concern.

POSSIBILITY OF DISPOSING OF FARM.

The statement has been made that all the farms in the country change ownership every 30 years. Many of these pass from father to son by inheritance, or otherwise change owners, but are kept in the family. On the other hand, a great many farmers dispose of their farms for one reason or another by sale, and when one is buying a farm he should also think about the time when he may want to sell it. It is sometimes a great deal easier to buy than it will be to sell.

If a farm can not be sold in some regions it can be rented, but in certain regions it is almost impossible to rent out a farm. This usually happens in areas of rather poor soils, where the farms are of low productive capacity and will not yield an income sufficient

to give the owner a return on his investment and leave the tenant enough to induce him to operate the place.

Very large farms are often difficult to sell because only a small number of persons want unusually large farms as compared with the number who desire and are able to buy medium-sized farms.

BUYING A FARM AND RENTING ADDITIONAL LAND.

It is often possible to purchase a small area and then increase the size of the business by renting adjoining lands. This practice permits the farmer to operate a good-sized business with a limited capital and at the same time gives him greater security than if he had no property of his own and rented the entire business.

Such a practice is a stepping stone which many men use in changing from the status of the renter to that of the owner. It is a practice which can be followed only in regions where land is readily available for renting and where grain farming or general farming is followed. This practice would hardly be possible in dairying or other live-stock farming, where the production of roughage and other feeds for the herd was required. Some years certain lands might not be available for renting, and this would mean a decided reduction in the herd.

Again, this practice might be followed with the idea of eventually buying adjoining lands. This question, therefore, is one which should be looked into carefully before making the venture.

RENTING A FARM.

Much of the foregoing discussion in regard to purchasing a farm applies equally well to the selection of a farm for renting. However, a farm is usually rented more as a place of business than as a home, and in view of this special attention should be given to the question of size as related to efficiency of operation, the importance of good soil, and the sureness of a market for the crops. One must also bear in mind that in renting a farm it is presupposed that the income will be sufficient to give the landlord a return on his investment and the tenant an income for his labor and the use of his capital in equipment, live stock, etc. This means that the farm must have the basis of a good income in order to make a sufficient return for both parties interested.

Farm-management investigations have shown that the profits of the tenant are usually in direct proportion to the size of the business he operates. As a tenant usually furnishes the live stock and machinery, a good-sized business permits him to obtain the greatest efficiency with his capital and is a most important consideration from his standpoint. The soil must be such that the crops will not

only pay for the labor and materials expended in their production but will also yield an income on the capital invested. It must, therefore, necessarily be of good quality. As said above, farms in regions of low fertility are seldom rented.

Again, the tenant, usually having but a small amount of capital, and being wholly dependent upon the year's work to give him his living, must guard against losses arising from a poor market or unfavorable climatic conditions.

SUMMARY.

As the purpose of this bulletin is merely to suggest some of the points which a person should observe when selecting a farm, the author has attempted to give only some of the more important of these.

A score card has been used sometimes to bring out the desirable and undesirable features of a farm. This is valuable only in giving a list of the items or points to be taken into consideration. It is not practicable to assign relative weights to any particular items. For instance, a farm might score perfect in every respect except water supply, but if no water was available it would be useless. Hence assigning to each item a percentage or weight might lead to erroneous conclusions. A better method seems to be to examine carefully all the features of two or more farms and then view the matter in a broad, common-sense way.

The appended blank form is presented as a summary of the points emphasized in this bulletin.

BLANK FORM FOR USE IN SELECTING A FARM.

Location of farm-----
 Owner-----
 Address-----
 Distance to shipping station-----; to trading center-----
 Condition of roads-----; in winter-----; in spring-----
 Distance to schools and churches-----; to nearest neighbor-----
 Is telephone available?----- R. F. D.?-----
 Electric current for lighting-----; for power-----
 Total area of farm-----; acres in crops-----; acres that can be used
 for crops-----; acres in pasture-----; acres in woods-----; acres in
 waste land-----; in roads, buildings, lots, swamps, lakes, etc.-----; acres
 in stump or brush land----- Kind of timber-----; ease in getting
 out timber or wood-----
 Topography as regards economy of cultivation-----; irrigation-----;
 danger from erosion or sliding-----; flooding-----

Natural fertility as evidenced by kind of forest growth and native vegetation-----

Present condition of fertility as evidenced by growth of crops or weeds-----

Physical condition of the soil-----; adaptability to legumes-----; adaptability to all kinds of crops-----

Natural drainage----- Artificial drainage----- Depth of soil-----

Kind of surface soil----- Kind of subsoil-----

Water supply: Source-----; quantity in dry summer months or during winter months-----; cost of upkeep-----; supply in pastures-----

Buildings as suited to kind of farming;-----; adaptability to another type of farming-----; cost of upkeep-----; arrangement for economy of work-----; desirability of dwelling as a home-----; condition of fences-----; kind as regards cost of upkeep-----; farm highways-----; shape of fields-----; nearness to farmstead-----

Kind of orchards-----; condition-----

Adequacy of trees for home use-----

Climate: As to growing season-----; days available for farm work-----; healthfulness-----

Neighborhood: Character of people-----; available labor supply-----

Possibility of increase or decrease in value of land-----

Possibility of selling farm-----

Possibility of renting farm-----

Desirability of farm as a strictly business investment-----

Desirability of farm as a home or place to retire-----

Adaptability of farm to changing economic conditions necessitating change of type-----

Adaptability of farm for enlargement of business-----

Adaptability of farm for diversification or improved organization of the business-----

Adaptability of the farm for high yields of crops and desirability for livestock production-----

Sureness of market for major crops grown-----

History of farm as regards management of land with respect to keeping up fertility-----

History of region as to development and speculation in lands as affecting present price-----

Number of other well-developed farms in immediate vicinity which are successful----- How long have they been farmed?-----

What are some of the operators' difficulties?-----

How soon can the farm be made a going concern?-----

SOURCES OF INFORMATION FOR PROSPECTIVE BUYERS OF FARMS.

SOIL SURVEYS.

Soil surveys have been made of many areas by the Bureau of Soils of the United States Department of Agriculture. The advance sheets of these soil surveys may be obtained through the Bureau of Soils of the United States Department of Agriculture as long as the supply available for free distribution lasts, the Department's edition being only 1,000 of each. Many of those no longer available for free distribution may be obtained for a nominal sum from the Superintendent of Documents, Government Printing Office, Washington, D. C. Persons interested in knowing what areas have been surveyed by the Bureau of Soils should request the Superintendent of Documents to send to them his Price List 46, entitled "Soils and Fertilizers."

IRRIGATION PROJECTS OF THE RECLAMATION SERVICE.

The irrigation projects developed by the Government of the United States are under the jurisdiction of the Reclamation Service, a branch of the Interior Department. Detailed information as to areas open to settlers may be obtained by addressing the statistician of the Reclamation Service, Washington, D. C.

HOMESTEADING PUBLIC LANDS.

Jurisdiction over the public lands of the United States which are open to homesteaders is in the General Land Office, a branch of the Interior Department. Detailed information as to areas open to homesteaders and the terms which must be complied with in order to obtain a homestead may be obtained by addressing the commissioner of the General Land Office, Washington, D. C.

VARIOUS STATE AGENCIES.

Some of the States are making special efforts to assist the farmer or prospective farmer in making a proper location. California and South Dakota both have State land settlement boards, although the purposes of these boards are not identical. The director of immigration of the Wisconsin Department of Agriculture is, among other things, attempting to advise settlers who desire to locate on Wisconsin land. In a number of States lists of farms for sale or publications descriptive of agricultural conditions have been issued by the State Boards of Agriculture or by similar agencies. The Department of Farms and Markets of the State of New York, Albany, New York, has issued annually in recent years, "A List of Farms for Sale or Rent in New York." The agricultural experiment station of some States have issued bulletins or reports on soils. In other cases agricultural experiment stations have issued bulletins giving information of a general nature to prospective settlers.

Up-to-date references for a particular State on agricultural subjects or authorities can usually be secured by addressing the State officers in charge of agricultural extension work. These officers are located as follows:

ADDRESSES OF STATE OFFICERS IN CHARGE OF AGRICULTURAL EXTENSION WORK.

Alabama : Alabama Polytechnic Institute, Auburn.
Arizona : College of Agriculture, University of Arizona, Tucson.
Arkansas : College of Agriculture, University of Arkansas, Fayetteville.
California : College of Agriculture, University of California, Berkeley.
Colorado : State Agricultural College of Colorado, Fort Collins.
Connecticut : Connecticut Agricultural College, Storrs.
Delaware : Delaware College, Newark.
Florida : College of Agriculture, University of Florida, Gainesville.
Georgia : Georgia State College of Agriculture, Athens.
Idaho : The State House, Boise.
Illinois : College of Agriculture, University of Illinois, Urbana.
Indiana : Purdue University, Lafayette.
Iowa : Iowa State College of Agriculture and Mechanic Arts, Ames.
Kansas : Kansas State Agricultural College, Manhattan.
Kentucky : College of Agriculture, University of Kentucky, Lexington.
Louisiana : Louisiana State University and Agricultural and Mechanical College, University Station, Baton Rouge.
Maine : College of Agriculture, University of Maine, Orono.
Maryland : Maryland State College of Agriculture, College Park.
Massachusetts : Massachusetts Agricultural College, Amherst.
Michigan : Michigan Agricultural College, East Lansing.
Minnesota : Department of Agriculture, University of Minnesota, University Farm, St. Paul.
Mississippi : Mississippi Agricultural and Mechanical College, Agricultural College.
Missouri : College of Agriculture, University of Missouri, Columbia.
Montana : Montana State College of Agriculture and Mechanical Arts, Bozeman.
Nebraska : College of Agriculture, University of Nebraska, Lincoln.
Nevada : College of Agriculture, University of Nevada, Reno.
New Hampshire : New Hampshire College of Agriculture and the Mechanic Arts, Durham.
New Jersey : College of Agriculture and Mechanic Arts of Rutgers College and the State University of New Jersey, New Brunswick.
New Mexico : New Mexico College of Agriculture and Mechanical Arts, State College.
New York : New York State College of Agriculture, Ithaca.
North Carolina : North Carolina State College of Agriculture and Engineering, West Raleigh.
North Dakota : North Dakota Agricultural College, Agricultural College.
Ohio : College of Agriculture, Ohio State University, Columbus.
Oklahoma : Oklahoma Agricultural and Mechanical College, Stillwater.
Oregon : Oregon Agricultural College, Corvallis.
Pennsylvania : Pennsylvania State College, State College.
Rhode Island : Rhode Island State College, Kingston.
South Carolina : Clemson Agricultural College of South Carolina, Clemson College.
South Dakota : South Dakota State College, Brookings.
Tennessee : College of Agriculture, University of Tennessee, Knoxville.
Texas : Agricultural and Mechanical College of Texas, College Station.
Utah : Agricultural College of Utah, Logan.
Vermont : University of Vermont and State Agricultural College, Burlington.
Virginia : Virginia Polytechnic Institute, Blacksburg.
Washington : State College of Washington, Pullman.
West Virginia : College of Agriculture, West Virginia University, Morgantown.
Wisconsin : College of Agriculture, University of Wisconsin, Madison.
Wyoming : College of Agriculture, University of Wyoming, Laramie.